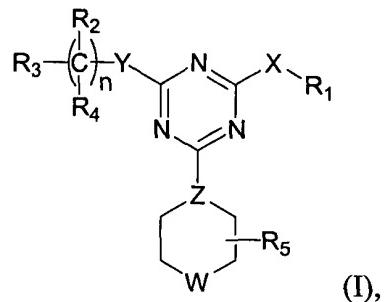
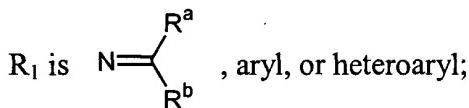


WHAT IS CLAIMED IS:

- 1 1. A compound of formula (I):



2 wherein



7 each of R₂, R₄, and R₅, independently, is R^c, halogen, nitro, nitroso, cyano, azide,
8 isothionitro, SR^c, or OR^c;

9 R₃ is R^c, alkenyl, alkynyl, aryl, heteroaryl, cyclyl, heterocyclyl, OR^c, OC(O)R^c, SO₂R^c,
10 S(O)R^c, S(O₂)NR^cR^d, SR^c, NR^cR^d, NR^cCOR^d, NR^cC(O)OR^d, NR^cC(O)NR^cR^d, NR^cSO₂R^d, COR^c,
11 C(O)OR^c, or C(O)NR^cR^d;

12 n is 0, 1, 2, 3, 4, 5, 6, or 7;

13 X is O, S, S(O), S(O₂), or NR^c;

14 Y is a covalent bond, CH₂, C(O), C=N-R^c, C=N-OR^c, C=N-SR^c, O, S, S(O), or S(O₂);

15 Z is N; and

16 W is O, S, S(O), S(O₂), NR^c, or NC(O)R^c;

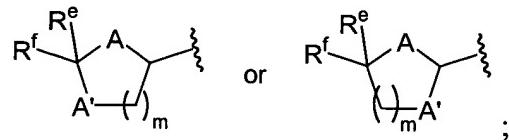
17 in which each of R^a and R^b, independently, is H, alkyl, aryl, heteroaryl; and each of R^c
18 and R^d, independently, is H, alkyl, or alkylcarbonyl.

- 19 2. The compound of claim 1, wherein R₁ is .
- 20
- 21

- 22 3. The compound of claim 2, wherein W is O.
- 23

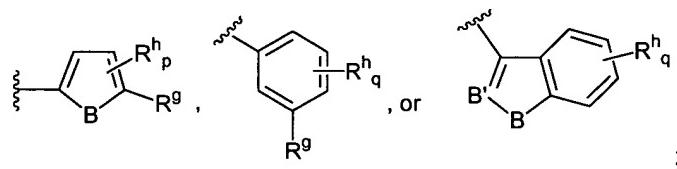
- 24 4. The compound of claim 3, wherein R₅ is H or alkyl.
- 25

- 26 5. The compound of claim 2, wherein X is NR^c.
 27
 28 6. The compound of claim 5, wherein R^c is H, methyl, ethyl, or acetyl.
 29
 30 7. The compound of claim 2, wherein Y is O or CH₂, and n is 0, 1, 2, 3, or 4.
 31
 32 8. The compound of claim 7, wherein R₃ is aryl or heteroaryl.
 33
 34 9. The compound of claim 8, wherein R₃ is pyridinyl.
 35
 36 10. The compound of claim 7, wherein R₃ is OR^c, SR^c, C(O)OR^c, or C(O)NR^cR^d.
 37
 38 11. The compound of claim 7, wherein R₃ is



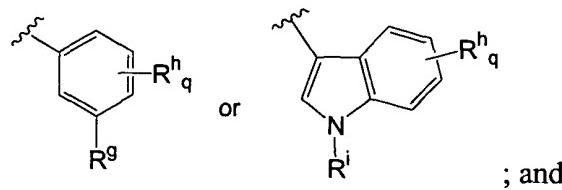
40 in which each of A and A', independently, is O, S, or NH;
 41 each of R^e and R^f, independently is H, alkyl, aryl, or heteroaryl; and
 42 m is 1 or 2.

- 43
 44 12. The compound of claim 2, wherein one of R^a and R^b is



46 in which B is NRⁱ, O, or S;
 47 B' is N or CRⁱ;
 48 R^g is H, alkyl, or alkoxy;
 49 R^h is halogen, CN, hydroxyl, alkyl, aryl, heteroaryl, alkoxy, aryloxy, or heteroaryloxy;
 50 Rⁱ is H, alkyl, or alkylcarbonyl;
 51 p is 0, 1, or 2; and
 52 q is 0, 1, 2, 3, or 4.

53

54 13. The compound of claim 12, wherein one of R^a and R^b is

55 ; and

56 the other of R^a and R^b is alkyl.

57

58 14. The compound of claim 13, wherein R^g is H, methyl, ethyl, methoxy, or ethoxy;
59 R^h is F, Cl, CN, methoxy, methyl, or ethoxy; Rⁱ is H, methyl, ethyl, or acetyl, and q is 0, 1, or 2.

60

61 15. The compound of claim 14, wherein R^g is methyl or methoxy; Rⁱ is H; and q is 0.

62

63 16. The compound of claim 14, wherein W is O; and R₅ is H or alkyl.

64

65 17. The compound of claim 16, wherein X is NR^c; and R^c is H, methyl, ethyl, or
66 acetyl.

67

68 18. The compound of claim 17, wherein Y is O or CH₂; and n is 0, 1, 2, 3, or 4.

69

70 19. The compound of claim 18, wherein R₃ is aryl or heteroaryl.

71

72 20. The compound of claim 19, wherein R₃ is pyridinyl.

73

74 21. The compound of claim 14, wherein Y is O or CH₂, and n is 0, 1, 2, 3, or 4.

75

76 22. The compound of claim 21, wherein R₃ is aryl or heteroaryl.

77

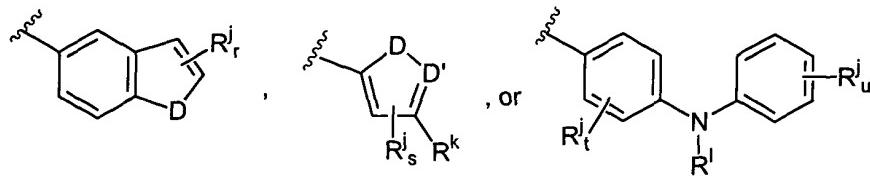
78 23. The compound of claim 22, wherein R₃ is pyridinyl.

79

80 24. The compound of claim 1, wherein R₁ is aryl or heteroaryl.

81

82 25. The compound of claim 24, wherein R₁ is



83
84 in which D is O, S, or NR^m;
85 D' is N or CR^m;
86 R^j is halogen, CN, hydroxyl, alkyl, aryl, heteroaryl, alkoxy, aryloxy, or heteroaryloxy;
87 R^k is aryl or heteroaryl;
88 R^l is H, alkyl, or alkylcarbonyl;
89 R^m is H, alkyl, or alkylcarbonyl;
90 r is 0, 1, or 2;
91 s is 0 or 1;
92 t is 0, 1, 2, 3, or 4; and
93 u is 0, 1, 2, 3, 4, or 5.

94
95 26. The compound of claim 25, wherein X is NR^c; and R^c is H, methyl, ethyl, or
96 acetyl.

97
98 27. The compound of claim 26, wherein W is O; and R₅ is H or alkyl.

99
100 28. The compound of claim 27, wherein Y is O or CH₂; and n is 0, 1, 2, 3, or 4.

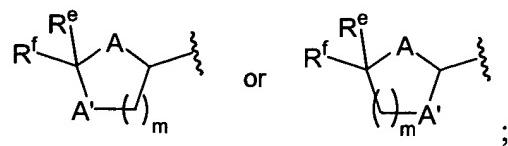
101
102 29. The compound of claim 25, wherein Y is O or CH₂; and n is 0, 1, 2, 3, or 4.

103
104 30. The compound of claim 29, wherein R₃ is aryl or heteroaryl.

105
106 31. The compound of claim 30, wherein R₃ is pyridinyl.

107
108 32. The compound of claim 29, wherein R₃ is OR^c, SR^c, C(O)OR^c, or C(O)NR^cR^d.

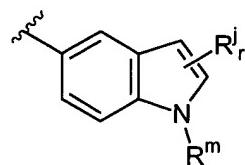
110 33. The compound of claim 29, wherein R₃ is



112 in which each of A and A', independently, is O, S, or NH;
113 each of R^e and R^f, independently is H, alkyl, aryl, or heteroaryl; and
114 m is 1 or 2.

115

116 34. The compound of claim 29, wherein R₁ is

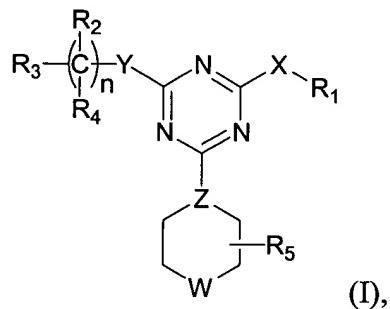


118

119 35. The compound of claim 34, wherein R^j is methyl, ethyl, propyl, or benzyl; and r is
120 1 or 2.

121

122 36. A compound of formula (I):



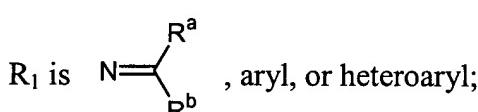
124

 wherein

125

126

127

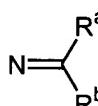


128

129

 each of R₂, R₄, and R₅, independently, is R^c, halogen, nitro, nitroso, cyano, azide,
 isothionitro, SR^c, or OR^c;

130 R₃ is R^c, alkenyl, alkynyl, aryl, heteroaryl, cyclyl, heterocyclyl, OR^c, OC(O)R^c, SO₂R^c,
 131 S(O)R^c, S(O₂)NR^cR^d, SR^c, NR^cR^d, NR^cCOR^d, NR^cC(O)OR^d, NR^cC(O)NR^cR^d, NR^cSO₂R^d, COR^c,
 132 C(O)OR^c, or C(O)NR^cR^d;
 133 n is 0, 1, 2, 3, 4, 5, 6, or 7;
 134 X is O, S, S(O), S(O₂), or NR^c;
 135 Y is a covalent bond, CH₂, C(O), C=N-R^c, C=N-OR^c, C=N-SR^c, O, S, S(O), S(O₂), or
 136 NR^c;
 137 Z is CH; and
 138 W is O, S, S(O), S(O₂), NR^c, or NC(O)R^c;
 139 in which each of R^a and R^b, independently, is H, alkyl, aryl, heteroaryl; and each of R^c
 140 and R^d, independently, is H, alkyl, or alkylcarbonyl.

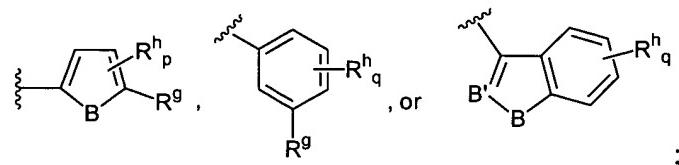
141
 142 37. The compound of claim 36,  wherein R₁ is .

144 38. The compound of claim 37, wherein W is O; and R₅ is H or alkyl.

146 39. The compound of claim 37, wherein X is NR^c; and R^c is H, methyl, ethyl, or
 147 acetyl.

149 40. The compound of claim 37, wherein Y is O or CH₂, and n is 0, 1, 2, 3, or 4.

151 41. The compound of claim 37, wherein one of R^a and R^b is



153 in which B is NRⁱ, O or S;

154 B' is N, CH, or CRⁱ;

155 R^g is H, alkyl, or alkoxy;

156 R^h is halogen, CN, hydroxyl, alkyl, aryl, heteroaryl, alkoxy, aryloxy, or heteroaryloxy;

157 Rⁱ is H, alkyl, or alkylcarbonyl;

158 p is 0, 1, or 2; and

159 q is 0, 1, 2, 3, or 4.

160

161 42. The compound of claim 36, wherein R₁ is aryl or heteroaryl.

162

163 43. The compound of claim 42, wherein W is O; and R₅ is H or alkyl.

164

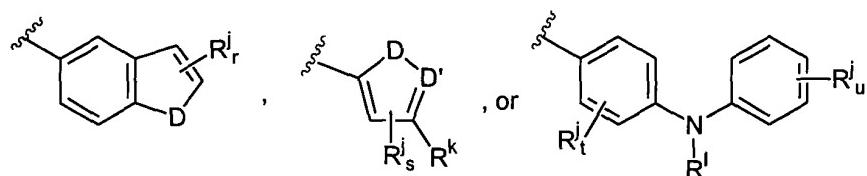
165 44. The compound of claim 42, wherein X is NR^c; and R^c is H, methyl, ethyl, or
166 acetyl.

167

168 45. The compound of claim 42, wherein Y is O or CH₂, and n is 0, 1, 2, 3, or 4.

169

170 46. The compound of claim 42, wherein R₁ is



171

172 in which D is O, S, or NR^m;

173 D' is N or CR^m;

174 R^j is halogen, CN, hydroxyl, alkyl, aryl, heteroaryl, alkoxy, aryloxy, or heteroaryloxy;

175 R^k is aryl or heteroaryl;

176 R^l is H, alkyl, or alkylcarbonyl;

177 R^m is H, alkyl, or alkylcarbonyl;

178 r is 0, 1, or 2;

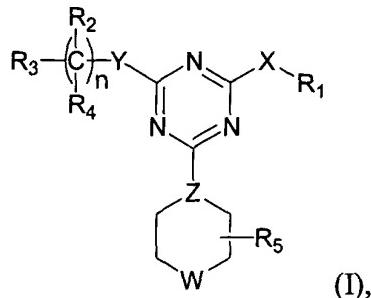
179 s is 0 or 1;

180 t is 0, 1, 2, 3, or 4; and

181 u is 0, 1, 2, 3, 4, or 5.

182

182 47. A method for treating an interleukin-12 overproduction-related disorder,
 183 comprising administering to a subject in need thereof an effective amount of the compound of
 184 formula (I):



(I),

185

wherein

187

188 R₁ is $\begin{array}{c} R^a \\ | \\ N=C \\ | \\ R^b \end{array}$, aryl, or heteroaryl;
 189

190

each of R₂, R₄, and R₅, independently, is R^c, halogen, nitro, nitroso, cyano, azide,
 191 isothionitro, SR^c, or OR^c;

192

R₃ is R^c, alkenyl, alkynyl, aryl, heteroaryl, cyclyl, heterocyclyl, OR^c, OC(O)R^c, SO₂R^c,
 193 S(O)R^c, S(O₂)NR^cR^d, SR^c, NR^cR^d, NR^cCOR^d, NR^cC(O)OR^d, NR^cC(O)NR^cR^d, NR^cSO₂R^d, COR^c,
 194 C(O)OR^c, or C(O)NR^cR^d;

195

n is 0, 1, 2, 3, 4, 5, 6, or 7;

196

X is O, S, S(O), S(O₂), or NR^c;

197

Y is a covalent bond, CH₂, C(O), C=N-R^c, C=N-OR^c, C=N-SR^c, O, S, S(O), S(O₂), or
 198 NR^c;

199

Z is N or CH; and

200

W is O, S, S(O), S(O₂), NR^c, or NC(O)R^c;

201

in which each of R^a and R^b, independently, is H, alkyl, aryl, heteroaryl; and each of R^c
 202 and R^d, independently, is H, alkyl, or alkylcarbonyl.

203

204

48. The method of claim 47, wherein the disorder is rheumatoid arthritis, sepsis,
 205 Crohn's disease, multiple sclerosis, psoriasis, or insulin-dependent diabetes mellitus.